

ABSTRACT OF THE DISCLOSURE

In a multi-layer telecommunications system which includes an application layer and a transport layer, differing transport technologies are interworked without terminating the application layer signaling or without involving a technology interworking in the control plane of the application layer (e.g., without interworking in the application signaling). In various illustrated embodiments, the application layer is a radio network layer of a wireless telecommunications system. In at least some embodiments of the present invention a transport layer interworking function is situated on an interface between two nodes of the radio access network (RAN). The interworking function can be located in a separate node which may be a node having both ATM and internet protocol (IP) interfaces. There are numerous modes of implementing the interworking of the present invention, regardless of which interface is affected (e.g., an Iur interface, an Iu interface, or an Iub interface). A first interworking mode involves interworking with q.aal2 signaling. There are various ways or options of implementing the interworking with q.aal2 signaling. A first such example option is to use an IP specific signaling protocol over the IP network. A second example option is to use q.aal2 signaling over the IP network to/from the IP node. In one of its aspects, the present invention also provides an optimization feature in the event that nodes on both side of the interface (Iu interface, Iur interface, or Iub interface) are IP-connected nodes. Another interworking mode involves obtaining address and binding identifier parameters to be included in application signaling messages by consulting a transport layer interworking gateway. Yet another mode of implementing interworking for the present invention involves tunneling.